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ABSTRACT

A growing literature has emerged concerning group-based difference in academic achievement, much of it pointing to the role of psychocultural factors. To study this observation, the educational achievement of children of immigrants, in the context of socio-psychological characteristics and ethnicity, is examined here. Data were taken from interviews of 5,267 second-generation students who lived in one of three large cities. Participants had to be either foreign born or U.S. born with at least one foreign-born parent. Survey information included data on the respondents' demographic characteristics, the nativity and citizenship of respondents and parents, family size and structure, and socioeconomic status (SES). Students from over 27 cultural groups were arbitrarily grouped into 8 categories. Grade, age, English language proficiency, maternal age, and parental SES were included as control variables. Results indicate that ethnicity accounts not only for school achievement directly, but it may also be indirectly related to other psycho-social predictors. However, two main findings underline this conclusion: (1) cultural influences remain enigmatic and cannot be broken down into variables, such as those considered in this study; and (2) there seems to be considerable variation within the immigrant population as a whole. Generalizations based on differences in minority status appear inaccurate. (RJM)

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Socio-Psychological Factors in the
Academic Achievement of Children of Immigrants:
Examining a Cultural History Puzzle

by

Pedro R. Portes

Madelon F. Zady

Department of Educational and Counseling Psychology

University of Louisville

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Abstract

The educational achievement of children of immigrants is examined in the context of socio-psychological characteristics and ethnicity. Math and reading scores were averaged and predicted by several composite measures collected in large samples from South Florida and San Diego in home-based interviews. The assumption that immigrant students differ from "involuntary" minority children is explored indirectly by including a number of socio-psychological indicators, including, self, esteem, achievement motivation and time management. Considerable variation was found among ethnic groups after social class, English proficiency and other factors were controlled. Implications for theory development and current models that attempt to explain the ethnicity effect are discussed.

Socio-Psychological Factors in the
Academic Achievement of Children of Immigrants:
Examining A Cultural Historical Puzzle

A growing literature has emerged concerning group-based differences (GBD) in academic achievement which often points to the role of specific psychocultural factors. Those factors may be manifested through a variety of socio-psychological characteristics of students and their communities, as well as a variety of historically determined contextual variables (Neisser, 1986; Trueba, 1988). Many aspects, including parent or student beliefs, attitudes, goals, routines, family, and societal factors, seem to interact in determining the compatibility between students' native culture and that of the dominant groups with respect to adaptation to school (Tharp, 1989; Whiting, 1976). The social capital available to students, their cultural origin and history, and the socio-educational context that serves them also appear as critical factors, which along with SES, and individual agency, are linked with group differences in school outcomes.

The educational achievement of immigrants is of particular interest to social science and educational policy concerned with the issue of inequality among U.S. mainstream, and non-immigrant groups. The ways cultural differences situate some children at risk for educational and social disadvantage, even when sensitive school-based or community interventions may be enforced, remains a critical problem in North American education. On the other hand, some cultures also appear to provide their children with certain advantages or protective factors, in the educational marketplace. In considering ethnic differences in school achievement, a puzzle emerges then with respect to why the school performance of some

immigrant students differs systematically from that of mainstream and domestic minority groups, or from each other's. Various explanations for today's disproportionate rates of drop outs, retentions and lower achievement among specific ethnic groups relative to the mainstream student population may be found in the literature (Foley, 1991, Steinberg, Dornbusch and Brown, 1992). These explanations or hypotheses can be generally subsumed under three main categories that are focused mainly on the culture of origin, the ways schooling is structured and their interaction (Mehan, 1992, Oakes, 1990, Ogbu, 1989). A full description of these accounts is not within the scope of the present study but may be found elsewhere (Author, 1996).

Ethnicity is often associated with differences in social economic status, educational performance and a variety of social problems. Yet, two types of cultural differences merit distinction, those concerning national subcultures and those concerning immigrant and second generation immigrants with respect to educational and occupational status. For example, the median family income for African Americans ($M=\$21,548$) is lower than immigrants from Africa, Trinidad, Jamaica, Haiti and the Dominican Republic ($M=\$30,000$). This immigrant "edge" tends to fade after three generations economically (The Economist, May, 1996). Only a few disparate studies can be found in this area that consider the educational achievement of children from diverse cultures (see Gibson and Ogbu, 1991, Matute-Bianchi, 1986; Portes & Schauffler, 1995; Rumbaut, 1995; Suarez-Orozco, 1989). The longevity of the immigrant edge of some groups' students, however, may well disappear in time but remains an empirical question. What conditions are necessary and sufficient to produce or eliminate this edge is an important research question. More research is needed that link socialization patterns and contextual factors with respect to the development of school aptitudes.

Given that students' adaptation to school is mediated by a variety of intra and inter-cultural factors, a major problem is that those factors generally remain confounded or interact with

each other. Most studies are limited by the number of factors that are actually investigated or populations that are considered. While the present study is no exception, it is unique in advancing some hypotheses about the role of cultural factors on human development with immigrant youth from various ethnicities. The present research on immigrant students' cultural adaptation across contexts contributes to a growing comparative literature (Berry, 1983; Marjoribanks, 1996; Neisser, 1986).

The Condition of U.S. Education Today

While over twenty percent of children in the U.S. develop under poverty (U.S. Dept. of Commerce, Bureau of Census, 1994), much larger rates are associated with certain ethnic groups. Most schools are still segregated by ethnicity and social class (Ornstein and Levine, 1989) with minorities constituting the majority in twenty-three of the twenty-five largest school districts in the United States, a trend that is increasing (Banks, 1995). A third of all Spanish-speaking students attend schools in which dominant culture children are a small minority but not insofar as teachers and administrators are concerned. Educational inequality today is indexed mainly by four closely correlated measures: years of education completed, drop out rates, grade retention, and subject matter achievement. Over two decades ago, thirty percent of African American students dropped out of high school as compared to the 15 percent drop-out rate for all other students. Subsequently, census data became available for not only race but also ethnicity. The federal government constructed new ethnicities, as persons from Spanish-speaking background were officially labeled as "Hispanic" regardless of culture and "whites" not of Latin-American background. The use of this labeling caused a significant decrease in the next census' dropout rates for white, non-Hispanic students. By 1991, a significant decrease in dropout rates were evident for white, (8.4%) and for black (13.3%) students, while 37% of students with Latin American origins

remained high school dropouts (Bureau of the Census, 1994). Unfortunately, the achievement and socio-psychological characteristics of first and second generation immigrant students are missing from these data. Those data seem important in unraveling key issues in a growing literature of cultural differences in academic achievement.

The problem of ethnic differences in education is complex, since it is associated with both high and low achievement for various groups. Considerable variation can be found among groups of students from historically disadvantaged minority groups compared to established Euro-American students. Explanations for the low achievement of the former are often centered on schooling practices. Labels are often used in ways that are not always in the interest of its bearers, leading to class and ethnic separation in opportunities to learn and limited educational futures (Oakes, 1990)

Other models have been developed to account for group differences in school adaptation that are based on students' culture (Trueba, 1994). For example, Native, African and Mexican-Americans share a history of oppression and cultural subordination rooted in colonialism that has been institutionalized. They may be regarded as colonized or as involuntary minorities (Ogbu, 1991). Immigrant groups, on the other hand, adapt differently, although they are also poor and suffer discrimination. The latter's folk psychology, their interpretation concerning unfavorable conditions and of the host society, along with their self-regard, values and motives, may differ from those of domestic, impoverished minorities. Although the immigrants' pattern of adaptation might resemble that of past European groups, differences in ethnic variables, current theory and research suggests that today's immigrants assimilate in a segmented fashion which varies considerably with context factors (Portes & Zhou, 1993). Cultural differences may emerge reactively after inter-cultural contact or as each new generation borrows

selectively from the mold of cultural origin.

Variations in achievement motivation regarding school and occupational success, as well as differences in communication, perceived and felt discrimination, self-esteem may be co-constructed as part of the cultural adaptation process. With respect to immigrant students, we do not know the extent to which students adapt in ways akin to those majority or minority groups. Beliefs such as learned helplessness or effort optimism (Ogbu, 1992), self -esteem, achievement motivation, or study and T.V. habits, may be related to different culture-based models of success. The influence of different contexts of reception, of secular, economic and political trends also require attention in this regard.

The Relevance of Research on Immigrant Students

Assuming that social class differences were eliminated, significant differences in intellectual achievement remain correlated with culture (Author, 1996). A culture's social and economic organization greatly sways communication, learning and motivational patterns to the advantage some more than others. However, small proportions of youth encapsulated in multiple disadvantages manage, develop, and thrive socio-economically. This phenomenon, although rare, has become a "hot" research topic in a new literature laden with explanatory constructs such as invulnerable children, social capital, resilience and competence. The study of immigrant group differences in educational outcomes provide fuel for theory development and may contribute to educational policy.

Although a disproportionate number of students at risk for educational failure come from minority groups, minority status per se, does not represent a satisfactory explanation. Cultural and historical factors mediate the cultural adaptation of various cultural groups. However, so does each group's agency. The relation between ethnicity and school adaptation remains a significant issue in need of empirical research. Several

assumptions have been extended in the literature concerning differences among groups with different cultural histories in terms of socio-psychological factors. Immigrant groups are viewed as less likely to manifest learned helplessness, to manifest an oppositional tendency, and to feel discriminated (Gibson and Ogbu, 1991). Those groups are alleged to have a dual frame of reference that is associated with a more positive assessment of their adaptation experience. For example, Chicanos were contrasted with Mexican immigrants in the U.S., and Korean descent-minorities in Japan (IVM's) with Korean immigrants in the U.S. . Achievement motivation and other beliefs were found to be related to children's academic success. Students from these groups tend to be more optimistic about succeeding in U.S. society (Suarez-Orozco, 1995) and to enjoy greater family support than involuntary group students. Suarez-Orozco (1989;1991) studied working class Central American students who had emigrated to the U.S. for political reasons and found a folk psychology or belief in "becoming somebody" that was related to school success. However, while some find the above evidence as supportive of a static typology model, others point to mediating factors concerning the social context in which these groups are received and their social capital might provide a more succinct explanation (Tharp, 1989; Trueba, 1988; 1988). The political and economic situation of the host country changes over time making it more difficult for immigrant youth to escape the stagnation of inner cities where most reside. Differences in language and physical traits also make their adaptation and acceptance into the mainstream difficult. A majority of these youths may find it easier to conform to the pressures exerted on and by domestic disempowered groups. Theoretically, a cultural-historical approach would focus on differences in access to key mediational tools and activities which characterize groups from a dynamic perspective.

At this point in time, the extent to which students' frame of reference, perceived or felt discrimination, fidelity to their

culture, or their identification with the mainstream culture varies across ethnic groups is not known. Nor is it clear how the above factors relate to academic achievement, particularly when larger and more diverse groups are considered. The role of parental SES, ethnicity, self-concept, achievement motivation and other variables needs to be sorted in explaining achievement differences.

It may be premature to assume that immigrant youth are homogeneous with respect to school adaptation and to factors such as those noted above. Many of the alleged group differences found in the literature with non-immigrants seem valid, although these are based on small samples of students. The data are rarely comparable across cultural backgrounds and the studies often lack important information that would permit contrasts. The extent to which membership in a culture remains significant after other potentially mediating factors are taken into consideration remains a key question in the field.

While current research may suggest that immigrant students differ from domestic, impoverished minority groups in certain important socio-psychological characteristics (that may be independent of SES), little is known about differences in school adaptation among immigrant students. This question remains unanswered, particularly when SES and proficiency in English are controlled. School success is generally believed to depend largely on social class, although a meta-analysis of over 200 studies suggest that it accounts for only about 5% of the variance in performance (White, 1982). Immigrant students' subjective perceptions of class, of their status in their country of origin, as well as of their actual cultural adaptation experience, may be important in accounting for group differences. Differences in English language proficiency, particularly with immigrant youths, also require attention. Those differences are important in determining the extent to which students remain encapsulated in a subculture outside the mainstream. The use of native language and the extent to which it prevails in routines outside school with friends and family is often regarded as an impediment to school

adaptation, which again, may be driven by English proficiency. Yet, whether students' retention and participation in their native culture is detrimental to school success, after English proficiency has been controlled, is an important empirical question. Finally, while various psychological variables such as self-concept and achievement motivation may have received attention, the influence of social class and ethnoculture have not been considered conjointly in studies concerning school achievement.

In sum, this brief synthesis of the literature points to several pending questions that require at least two types of research. The first would involve students of immigrant parents from various cultures in examining many of the current assumptions, including that of homogeneity in a number of psychosocial areas, relative to non-immigrant groups. The second type would involve examining similar assumptions and areas with non-immigrant subcultures and mainstream students which would then allow for contrasts with the first type of research. The current study is of the first type and focuses on various immigrant groups in two different social contexts in the U.S.. While the study is limited to only some groups of immigrant students (Latin American/Caribbean and Asian), it provides an important baseline for contrasts with the extant data on mainstream and other domestic minority populations. This study examines a complex of predictor variables with respect to the school success of children of immigrants. The following research questions are of particular interest in an essentially descriptive study;

- A) What are the main predictors of academic achievement with respect to immigrant youth beyond SES and English language proficiency?
- B) Is the net effect of ethnoculture significant beyond socio-psychological and standard control variables?
- C) To what extent are socio-psychological factors independent of

ethnic origin and control factors such as social class, in predicting academic achievement?

Method

The data for this study stem from the Youth and Adaptation and Growth Questionnaire developed for the Second Generation Project in Miami and San Diego (Portes & Zhou, 1993). A full description of the design of the study, sampling, and procedures is available elsewhere (Portes & Schauffler, 1995; Rumbaut, 1995). In the Spring of 1992, a total of 5267 second-generation students were interviewed. Second generation status for children was defined as having at least one immigrant parent and being born in the United States or living the country for at least 5 years. The bias created by school dropouts in the higher school years was minimized by limiting the sample to the eighth and ninth grades, a time when almost every child is still in school. One-half of the sample was born outside the U.S. before age 12 while the other half were born in the U.S. and had immigrant parents. The sample was also evenly split by gender and grade.

The survey included 5,264 children from 77 different nationalities interviewed in 42 different schools in the school districts of Dade County (Miami), Broward County (Ft. Lauderdale), ($n > 2800$) and the San Diego metropolitan area ($N > 2400$). The former were from Cuba, Haiti, Jamaica, Nicaragua, Colombia, the West Indies, and other Latin American countries while the latter were from Mexico, the Philippines, Vietnam, Cambodia, Laos and other Asian groups (China, Japan, Korea and India). After securing parental consent, the study accessed school records thus allowing researchers to match the characteristics of the respondents--including their nationality, sex, age, parental education, length of U.S. residence and aspirations--with their performance in school.

Sample selection

To be eligible for inclusion in the study, a student had to be foreign-born or U.S.-born with at least one foreign-born parent. Since the school districts do not collect information on the nativity or immigration status of parents, a brief initial survey of all eighth and ninth graders was carried out to determine their eligibility. All eligible students then took parental consent forms home. The return rate was 75% for the San Diego group and about 67% of the South Florida group (Rumbaut, 1995).

Measures

The survey provided data on the respondents' demographic characteristics, the nativity and citizenship of both the respondents and their parents, family size and structure, and socioeconomic status including parents' education and occupation, and home ownership. To examine the relation of psychosocial variables, culture and achievement, students from over 27 cultural groups were arbitrarily grouped into eight categories; Southeast Asian, Other Asian (Chinese, Indian, Korean, Japan, Taiwan), Jamaican, Haitian, Mexican, Cuban in public school, Cuban in private school, Other Latin American and Filipino. (The rationale for these groupings is based on preliminary analyses that employed more distinct groups and which produced similar findings to those described herewith. A separate report will examine this issue in greater detail as well as that of content area achievement). School achievement was defined by the average of math and reading standardized scores. Grade, age, English language proficiency, maternal age and parental SES were included as control variables. Table 1 shows the distributions of these demographic variables.

Table 1
Sample Characteristics by Gender and Ethnoculture

| Gender | (N) |
|-----------------------|------|
| Male | 2225 |
| Female | 2234 |
| Ethnoculture | |
| South-east Asian | 595 |
| Other Asian | 144 |
| Filipino | 781 |
| Private School Cubans | 103 |
| Public School Cubans | 929 |
| Mexican | 661 |
| Latin () | 914 |
| Jamaican | 184 |
| Haitian | 148 |
| Total * | 4459 |

* Due to missing values, the analyses included less than the total number surveyed

Socio-psychological Measures

The respondents' perceptions of their family's socio-economic status (SES) at present and five years earlier were considered. Time management was examined through a composite of hours spent daily on homework divided by hours spent watching television. The language used in daily routines with peers and family was examined in the analyses. Respondents' peer relationships were examined separately in light of numbers of friends and the number of friends of similar ethnic background.

A range of attitudinal and other psychosocial variables were analyzed. Measures of parent-child conflict, depression, familism

and Americanism were included as defined in an earlier study (Rumbaut, 1995). These scales assessed the strength of family bonds (Familism), U.S. acculturation (Americanism) and the degree of parent-child conflict from the interview items. Parent-Child Conflict (PCC) is a composite that includes three items involving parent and child discord.

Self-esteem was measured by the 10-item Rosenberg scale (Rosenberg, 1965, 1979). Depressive symptoms were measured with a 4-item subscale from the Center for Epidemiological Studies-Depression (CES-D) scale (these items have been found to be predictive of major depression among adolescents (Vega et al., 1993; cf. Vega and Rumbaut, 1991)).

The ELI scale (Ethnic Language Index) included items which measure the student's facility in reading, writing, understanding and speaking the parents' native language. EPI (English Proficiency Index) indicates the student's proficiency in reading, understanding and speaking English. The current sample was found to be English proficient for the most part.

Measures based on Preliminary Factor Analyses

Several measures were developed through factor analysis from selected interview items concerning perceived, and felt discrimination, achievement motivation and family socio-economic status and other variables relevant to cultural adaptation. The following four measures were developed first with a varimax rotation, a decision which was based conceptually to reduce the data to four factors believed to be distinct. Factor scores were derived for further analyses.

Table 2
Principal Components Factor Analysis Results

| Factor | Eigenvalue | % of Variance | Cumulative |
|---------------------|------------|---------------|------------|
| Felt Discrimination | 7.34 | 32 | 32% |
| Family SES | 3.54 | 15 | 47% |
| Ach. Motivation | 1.85 | 8 | 55% |
| Perceived Discrim. | 1.67 | 7 | 63% |

Table 3
Factor Loadings and Items for Four Factor Solution

| <i>Factor I - Felt Discrimination</i> | |
|----------------------------------------|----------------------------------------------------|
| .99 | Feel discriminated against by counselor |
| .99 | Feel discriminated against by Cubans |
| .99 | Feel discriminated against by students |
| .99 | Feel discriminated against by blacks |
| .99 | Feel discriminated against by Whites |
| .99 | Feel discriminated against by teachers |
| .47 | Discriminated against no matter how much education |
| <i>Factor II Socio-Economic Status</i> | |
| .68 | Mother SEI Score |
| .68 | Mother's SEI Score |
| .67 | Mother's Occupational Prestige Score |
| .66 | Father Occupational Prestige Score |
| .66 | Father SEI Score |
| .64 | Father's highest level of education |

| <i>Factor III</i> | <i>Achievement Motivation</i> |
|-------------------|------------------------------------------|
| .60 | Highest level of education R can attain |
| .56 | Chances of getting desired adult job |
| .56 | How certain of getting desired adult job |
| .52 | Highest level of education R desires |
| .39 | Desired adult job by ed level |
| | |
| <i>Factor IV</i> | <i>Perceived Discrimination</i> |
| .67 | Much racial conflict in U.S. |
| .66 | Sees racial discrimination in economics |
| .59 | Americans feel superior to foreigners |
| .54 | American way of life weakens family |

The first factor was defined by eight variables which dealt mainly with discrimination felt by respondents and was called FELT DISCRIMINATION. These items, unlike those in subsequent fourth factor, indexed direct experiences of discrimination. The second factor was defined by variables that indexed family socioeconomic status, including the Treisman and the Duncan scales, and parents' educational achievement. The factor was named SES. Together, these provided a multidimensional measure of socio-economic status. The third factor defined the variables concerned with achievement and vocational motivation, named Achievement Motivation. The fourth factor loaded on four variables which represented perceived discrimination and was called PERCEIVED DISCRIMINATION. Factor scores were derived for the above factors and employed in subsequent regression analyses.

Two Other Factor-based Cultural Adaptation Measures

The interview schedule included several items and scales that were relevant to student's cultural adaptation. Again, in order to utilize as much of the information available in the interviews, two other measures were constructed. The students' cultural

identity development, for example, could be indexed by their choice of language in daily routines, their parents' own cultural identification and certain attitudes or perceptions with respect to American culture. A factor analysis of twelve variables was conducted to examine these constructs of cultural identity in relation to the respondents' transition toward American culture. Although a bipolar factor was hypothesized ranging from preferences for natal to American ways, a two factor solution was found to be more tenable, accounting for 49% of the variance. The first factor consisted of items relating to parents' own cultural adaptation and the respondents' assimilation into the mainstream American culture as measured by the Americanism scale, which had a small negative loading on the second factor. The "pull" of the native culture on the individual, and the extent to which respondents' first language is maintained, served as an index of the respondents' ethnic identification and adaptation in the second factor. The latter also served to measure the respondents' native language proficiency. The parents' use of the native language also served to differentiate the two factors. The pattern matrix is presented in table 4.

TABLE 4
Factor Pattern Matrix for Cultural Adaptation

| <i>Factor I</i> | American Assimilation |
|-----------------|----------------------------------|
| <i>Loadings</i> | |
| .72 | Mother identifies self with U.S. |
| .70 | Mother is a U.S. citizen |
| .67 | Father Identifies self with U.S. |
| .61 | Father is a U.S. citizen |
| .40 | Americanism Scale |

| | |
|------------------|----------------------------------------|
| -.34 | Ethnic language/parents |
| | |
| | |
| Factor II | Maintenance of Language/Culture |
| .90 | Ethnic Language Index |
| .88 | Bilingualism |
| .71 | Ethnic language/home |
| .70 | Ethnic language/friends |
| .69 | Ethnic language/school |
| .57 | Frequency of non-English |
| .48 | Ethnic language/parents |

From the above factor analysis, two composites were formed and used in the regression with the other measures described earlier to examine the degree to which students' cultural adaptation and evolving social identity could be discerned and related to their school achievement. This analysis suggests that respondents' maintenance of the native language and fidelity to their culture of origin is independent, to a great extent, of their assimilation into American culture. The present oblique solution, which allows both factors to be correlated, did not improve the interpretableness or simplicity of structure found with an orthogonal, varimax solution. Both factors were converted into scales which had Cronbach alpha coefficients of .66 and .80, respectively.

Other Predictor variables

The number of ethnic friends and total number of friends were also considered to examine the role of peer influence, respectively. Time management was a predictor variable that was constructed as a proportion of the hours spent by the respondent

doing homework to the number of hours watching television. Father absence, as well as that of the mother, time living in the U.S. were also examined before building the regression model.

Factor and scale scores were derived from the above analyses, and other questionnaire items served as independent variables on a regression analysis of student achievement, controlled for age, grade, SES, English language proficiency, and mother's age. The predictors of academic achievement, as indexed by the average of math and reading achievement scores, are presented in the following regression summary table. Percentile school achievement scores were converted to standard scores before averaging them. Although some differences were found between mathematics and reading achievement, they are beyond the present scope and will be presented in a subsequent report.

Results

After controlling for SES, English proficiency, age, grade, and maternal age, 21.5% of the variance in achievement was explained. Membership in the "OtherAsian" group was the most significant predictor, followed by self-concept (see Table 5). Membership in the Filipino group was the next predictor followed by achievement vocation motivation and perceived discrimination. The latter having a negative effect as did the next predictor membership in the Haitian group. Next came familism which had a positive effect on achievement. South-east Asians and Cubans in private schools entered next with positive effects. The number of close friends had a negative effect on achievement, while perceptions of the family's current economic situation had a positive effect. Time management (the ratio of time spent on homework to that spent watching TV) was positively related to achievement. American identity and adaptation proved to be negatively associated with achievement as were membership in the Jamaican group and the Maintenance of Culture factor. Mother's age was not significant (See table 5).

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Table 5

| Summary of Stepwise Regression Analysis for Variables Predictive of School Achievement (N=4077) | | | | |
|-------------------------------------------------------------------------------------------------|---------------------|-------|------|------|
| Variable | | B | SE B | BETA |
| CONTROL | English Proficiency | .06 | .01 | .13 |
| | GRADE | .22 | .04 | .12 |
| | SES | .12 | .02 | .14 |
| | AGE | -.09 | .03 | -.09 |
| Other Asian Ethnicities | | .62 | .11 | .12 |
| ROSENBERG SELF ESTEEM | | .02 | .00 | .10 |
| Filipino Ethnicity | | .31 | .06 | .12 |
| ACHIEVEMENT MOTIVATION | | .09 | .02 | .10 |
| PERCEIVED DISCRIM | | -.08 | .02 | -.09 |
| Haitian Ethnicity | | -.48 | .10 | -.10 |
| FAMILISM | | .03 | .01 | .08 |
| South East Asian Ethnicity | | .16 | .06 | .06 |
| Private Cuban Ethnicity | | .34 | .10 | .07 |
| # OF FRIENDS | | -.00 | .00 | .05 |
| ECONOMIC SITUATION | | .06 | .02 | .05 |
| TIME MANAGEMENT | | .09 | .03 | .06 |
| AMERICAN ASSIMILATION FACTOR | | -.02 | .01 | -.06 |
| Jamaican Ethnicity | | -.30 | .09 | -.07 |
| MAINTENANCE OF LANGUAGE/CULTURE FACTOR | | -.01 | .00 | -.07 |
| (Constant) | | -2.60 | .39 | |

Multiple R = .45, R Square = .21

Besides the above variables that proved significant, others that proved otherwise deserve some attention. These were measures of Felt Discrimination, Father Absence, Mother absence, Respondent's gender, Respondent's age, Length of time respondent lived in U.S., How many people live with respondent, Age of father, Economic situation compared to 5 years earlier. Three groups were not found significant in predicting student school performance: Cubans in public school, Other Latins, and Mexicans.

Discussion

This study's contribution lies primarily in describing different types of predictors of school achievement behave in a sample constituted by children of immigrants. It provides a baseline of data that is relevant to conceptual issues in this field. While the influence of social class and several of the psychosocial measures have been considered in previous studies for different populations, this report examined their relation to educational achievement along with ethnocultural predictors. It appears that ethnicity accounts not only for school achievement directly, but it may also be indirectly related to other psycho-social predictors found in the study. This study, however, does not allow for causal analyses.

There are two main findings in this study. First, the influence of culture remains enigmatic and cannot be decomposed into variables such as those considered in this study. That is, folk explanations about the nature of the ethnicity effect on school adaptation appear unsubstantiated to a considerable extent since they were measured independently. After demographic and socio-psychological variables were examined, the net effect of several ethnic memberships remained significant. Second, there seems to be considerable variation within the immigrant population as a whole. Generalizations based on differences in minority status, or that allege differences in the folk psychology of domestic groups' school adaptation, relative to immigrant ones,

appear inaccurate. Membership in specific cultural groups appears important and may not be reduced to specific socio-psychological variables.

Why is the influence of ethnocultural membership, independently of other factors, predictive of achievement in schools? The contexts into which each group is received, as well as the resources that each group may develop seem critical, and remain difficult to identify and measure. The problem is also compounded by the extent to which individuals identify with their culture of origin or their host culture. Six ethnocultures had significant effects on achievement even after social class, English proficiency and other factors were controlled. In fact, ethnicity as a whole accounted for as much variance (5%) as social class. Membership in some immigrant groups, as each adapts to a particular socio-historical context thus appears to mediate student achievement.

Does this mean that the cultural capital of the other groups (non Asian or private Cuban) is not as valuable, leaving the psychosocial and control predictors as the only predictors of academic achievement? Is the ethnicity effect limited mainly to some groups, or to some groups acting with certain means or social capital? To what extent do these means become activated or neutralized, as a function of different contexts, cultural characteristics or both? Although these appear to be important questions, these data do not allow for their resolution. Ethnicity, like social class remain difficult to unpackage (Whiting, 1976), particularly for some groups. Other factors need to be considered in the future.

The order in which each ethnocultural group, as well as each of the socio-psychological variables enter the regression equation, also appears relevant. After English language competence, social class and grade in school are accounted for, membership in the (non-Southeast) Asian group becomes the main predictor of achievement. Membership in the Filipino group does not become significant, however, until self-esteem is accounted

for. Only then do two other socio-psychological variables become relevant, achievement motivation and perceived discrimination. The greater the perceived discrimination, the higher the achievement level. Membership in the Haitian group then becomes negatively associated with school success. Familism has a negative influence on achievement, followed by Southeast Asian and Cuban (private school) membership. The number of friends a student has is inversely associated with achievement. After the above variables are controlled, students' perceptions of their families current economic situation has a positive effect on achievement. Time management becomes a significant predictor of achievement but much later than might have been expected. Identification with U.S. culture is negatively associated with achievement. Interestingly, after Jamaican and Haitians ethnicity are accounted for, fidelity to the native culture and language is also predictive of lower achievement. While the variance accounted for by these last predictors seems negligible, the pattern here is noteworthy in that it suggests that the ethnicity-context connection is advantageous in some cases but not in others. Students who place value on adapting to American ways, and whose parents also identify themselves as Americans do not adapt well in school. It seems that neither identification with the mainstream, nor with the natal group (as indicated by language routines), has a positive effect on achievement after other factors are considered.

The nature of psychocultural factors predictive of immigrant children's achievement seem to be of both theoretical and practical significance. These predictors of student achievement may be conceptualized as involving psychocultural variations at two inter-related levels. First, factors such as time management, achievement motivation, and self esteem appear more individual than some of the others but are at the same time influenced by the ecocultural niche. The other predictors appear to be contextual and outside the person's realm of control, for example, socio-economic status, gender, and culture of origin. Yet, the

configuration of significant predictors suggests a mixture of processes with structural factors that require future research attention. For example, perceived discrimination may be important not only because of the student's subjective reaction to the immediate cultural context. It may also reflect others' reaction to the student's culture, to their physical and linguistic traits and behavior.

The social distance generally indexed by traditional research that employs "race" as a variable seems partly indexed by perceived discrimination. The latter remains significant after self-esteem and achievement motivation have been controlled. It is also noteworthy that perceived discrimination and not direct felt experiences of such, mattered most in this study.

Theoretical Considerations

A cultural-historical framework, grounded in activity setting variables (Tharp & Gallimore, 1988), seems most useful in making sense of the present results. This framework provides for a multilevel understanding of person-context variables through the activity-setting unit of analysis. In this study, several of the variables within this unit are present, subjectively and objectively. Personnel variables concern persons with whom the child interacts on a regular basis, and includes characteristics such as their profession, attitudes, education, insofar as children's socialization is affected. The social capital reflected by personnel who are available to the child appears to vary depending on the ethnosculture and the social context in which cultural adaptation takes place. In this study, the presence of each parent, relatives, and peers was examined. What goals the student has, beliefs, and attitudes are also part of this unit of analysis. For example, familism, achievement motivation, and self-esteem form part of the variables in the activity setting. The daily routine scripts, the values upheld by the individual, and natal group appear in this study through time management with regard to television viewing and homework. The language through

which social interactions are encoded, as well as the persons involved, also help to define the child's cultural experience. The "task demands" that the individual must confront in a particular social settings need to be considered in defining the activity setting. In this case, school and cultural adaptation represent the tasks to be negotiated by adolescent students, some of whom are still mastering English or are beginning to understand the national culture. Together, these predictors capture some of the important influences in students' socialization process.

Social Capital

Membership in the Asian and Cuban groups attending private schools is positively associated with achievement. These groups come with the most advantage in terms of social capital and the welcome extended by the host community. This suggests that the ethnic membership effect includes the context afforded by the host culture. In contrast, Haitian origin compromises those students' school adaptation for they come into a much less negative context. However, the fact that Jamaican ethnicity, in spite of language compatibility, is negatively related to achievement suggests a more general hypothesis. Discrimination, on the basis of skin pigmentation but independent of language and social class, is a contextual factor that negatively affects not only the school adaptation of students but the whole complex of socio-psychological variables that support such adaptation. A corollary to this hypothesis is that where the social context is the urban inner-city, such effect is intensified in that accentuation group differences are stereotyped more easily.

How may proficiency in non-English languages become a liability or an indicator of lower achievement? Based on the pattern of results, it appears likely that language proficiency is an indicator for something else such as social distance. That is, proficiency in French if the student is Haitian and received in Miami, or proficiency in Spanish, if the student is Mexican and received in California, may be indicative not simply of ethnic

origin but of a group's diminished status and power in a particular historical context, something which carries socio-psychological ramifications. The pattern here is suggestive then of an unwelcomed immigrant syndrome that befalls those whom appear most like caste-like minorities. These culturally different students must try even harder to overcome the barriers imposed upon those encapsulated by the inner-cities' poverty (see Fordham, 1988; Heath & McLaughlin, 1994). In the contexts of reception which await students from these particular groups, it appears that the compatibility with the school culture becomes doubly compromised. First, the economic situation of students' families, discrimination, and similar factors appear to compromise some students' school achievement. Secondly, they must also differentiate their identity from that of disparaged caste-like groups with a minimum of social support. A transformative effect appears to operate in some cultures that systematically orients children's socialization otherwise. For example, Asian immigrants in California or Cubans in Florida may be advantaged by their communities' social capital as much as by a more favorable context of reception (Portes and McLeod, 1996; Szapocznik & Kurtines, 1980; Wong Rieger & Quintana, 1987). These data, unfortunately, do not allow for substantiation of such causal theses.

Conclusions

While it is impossible to pursue the various hypotheses that might easily be entertained, future studies of these and similar data require are needed. It would seem useful to explore causal models at this point. Just as important, expanding these data to include students from established majority and minority groups seems a priority. These data provide a very limited picture with respect to explaining the immigrant "edge" that generally dissipates over subsequent generations. The simplest interpretation may be that the variance explained by group membership indexes dynamic processes that are not addressed in this study. To explain the ethnicity effect, research needs to

identify new factors that might attenuate the achievement-group membership relation.

Current attempts to explain group differences in school achievement based on generalizations about immigrant and involuntary minorities may be flawed. A main finding is that significant variation exists within immigrant groups that deserves attention to processes beyond those indicated by the measures considered in this report. Just as minorities show considerable within group variation, this study alerts researchers to delve deeper into the sources of such variations. Models based on simple typologies do not appear well founded. For example, students' frame of reference with respect to their families economic situation five years earlier, did not turn out to be significant. Rather, students' perception of their current economic situation seemed more important. The latter would seem to be related to family SES. Since SES was controlled in this study, it would appear that students' awareness of their family status mediates motivation toward school achievement. Hence, the family's economic situation appears to play a dual role in this respect. In separate post hoc analyses, these students' frame of reference concerning the family's economic situation five years earlier, correlated negatively with achievement, contrary to Ogbu's (1992) expectations. The more improvement over time reported on this item, the lower the student achievement, again suggesting that this explanation is not well grounded.

With respect to the "try harder" dynamic commonly attributed to immigrant students, it seems that achievement motivation is clearly important but not a defining trait of any one group. Like self-concept and time management, these factors appear to be independent of group membership. Similarly, these data suggest that it is not the discrimination experienced by students that matters but rather their perception of how rampant it is in the host context. Students seem keenly aware of discrimination but those who perceive it the most do better in school. This suggests that beliefs count in this and other domains. Where the context

of reception is unfavorable to the student, family, or ethnic group, a lack of effort towards optimism may set in and lead to an external locus of control. On the other hand, in contexts where the ethnic enclave protects students's self esteem, discrimination might be perceived differently. Such protective factors might be influenced by the economic success of the immigrant community. Perceived discrimination is a belief, that like self-concept, seems linked to a motivational component of school adaptation.

This study suggests a need for conceptualizing the problem of cultural differences anew. Rather than explaining the net effect of cultural membership solely in terms of differences in certain social and psychological characteristics, behaviors or differences in cultural context, a multidimensional, context-person-context model appears necessary. The cultural "press" in which students are socialized varies possibly in its effect at the individual level. Several sources of variation seem important beyond psychological ones, such as the cultural history of an enclave, its position in the larger community, and other factors that might mediate the social capital available to the student. The contexts into which each group is received, as well as the resources that each may develop seem critical, yet difficult to assess. In part, the problem becomes complicated by the extent to which individuals identify with their culture of origin or their culture of evolution. In some cases, one type of identification might be beneficial to school adaptation but not in other cases. The relation between social and individual agency, as well as the means available, require future research attention.

The paradoxical issue of ethnocultural group differences requires further concern. Beyond confirming that important within immigrant group differences exist, ethnoculture remains a "black box" with more questions raised than resolved. Membership in some groups noted had a positive effect on achievement. What do these groups have in common? What about the other groups that either did not have an effect or had a negative trend? It seems that

immigrant groups who must adapt to a discriminated, domestic minority or an ethnic enclave that has little social capital are the least likely to do well in school (While the Mexican group variable did not enter the equation, their mean achievement scores were found to be significantly below average (Portes and McLeod, 1995).

Towards A Contextual Model of Cultural Agency

A cultural historical approach to the group based difference puzzle might be sketched as follows. Membership in an immigrant group, particularly during this early stage of acculturation, does not ensure an advantage over impoverished domestic minorities. The variance accounted for by some ethnic memberships, beyond factors that may be regarded as endogenous, is mainly a function of four interacting variables: a) the cultural history and traits of the immigrant group, b) the degree to which the latter are compatible with or conducive toward adaptation into domestic minorities' cycle of poverty, or compatible with the mainstream c) the host/mainstream's reception to the immigrant group, inclusive of its reaction to ethnic markers (phenotypic and cultural) in a particular historical moment, and d) the political and social capital developed by the immigrant group in the host culture that supports its members' agency in the community.

Based on the above, a closer approximation may be possible in accounting for the present data. For example, Asian immigrant groups ("a") do not generally melt into a "b" path and must cut their own. They tend to have solid support from ethnic enclaves ("d") who overcame discriminatory reactions on the part of the mainstream ("c"). Filipinos may be regarded essentially as similar to the above group. Cubans in private school ("a") have compatibility with the mainstream ("b") and count on the protective factors inherent in ("d"). Also, the reaction by the host culture has been relatively benevolent due to compatibility in markers which facilitate adaptation, political history and the means afforded by the host government (unlike Haitians for instance). This model would predict a similar pattern for Cubans

in public schools, who had a positive, but not significant beta coefficient. Although the latter group's "b" and "c" factors tend to be lower than those for Cubans in private school, they still count with a strong "d" factor. Mexican and Haitian immigrants face a double risk because of their compatibility ("b") with disparaged domestic minorities and host reaction ("c"). Their enclaves' social and political capital ("d") is not yet developed sufficiently enough to protect its members generally.

The model represents only a preliminary effort to make sense of a cultural enigma concerning adaptation. It is consistent with both, a segmented assimilation view (Portes & Zhou, 1993) and a cultural-historical perspective that extends well beyond scholastic achievement. While more data are necessary to lend support to the model, the answers to what has become a cultural difference riddle are important in addressing fundamental issues in educational research and policy concerning not only ethnic but more importantly, majority students.

Bibliography

Author 1996 Culture and Ethnicity in Educational Psychology, chapter The Handbook of Educational Achievement (R. Calfee & Berliner, D., Eds) Mc Millan Publishing, N.Y.

Banks, J. A. (1995). Handbook of Multicultural Education. N.Y. McMillan Publishing.

Berry, J.W. (1983). Acculturation: A comparative analysis of alternative forms. In R.J. Samuda & S.L. Woods (Eds.), Perspectives in immigrant and minority education (pp.65-78). Lanham, MD: University Press.

Black like me. (1996, May 11). The Economist, pp. 27-28.

Bureau of the Census. (1992). Poverty in the United States. (Department of Commerce, Current Population Reports, Series P-60).

Foley, D. (1991). Reconsidering anthropological explanations of ethnic school failure. Anthropology and Education Quarterly, 22(1), 60-86.

Fordham, S. (1988). Racelessness as a factor in black students' school success: Pragmatic strategies or pyrrhic victory. Harvard Educational Review, (58)1. February.

Gibson, M. A., & Ogbu, J. U. (Eds.) (1991). Minority status and schooling: A comparative study of immigrants and involuntary minorities. New York: Garland.

Heath, S.B., & McLaughlin, M.W. (1994). Identity and Inner-City Youth: Beyond Ethnicity and Gender. New York: Teachers College, Columbia University.

Marjoribanks, K. (1996). Ethnicity, proximal family environment, and young adolescents' cognitive performance. Journal of Early Adolescence, 12(3), 340-359.

Matute-Bianchi, M. E. (1986). Ethnic identities and patterns of

school success and failure among Mexican-descent and Japanese-American students in a California high school: An ethnographic analysis. American Journal of Education, 95, 233-255.

Mehan, H. (1992). Understanding Inequality in Schools: The Contribution of Interpretive Studies. Sociology of Education, 65(January), 1-20.

Neisser, U. (1986). The School Achievement of Minority Children: New Perspectives. Hillsdale, N.J.: Lawrence Erlbaum Associates.

Oakes, J. (1990). Multiplying inequalities: The effects of race, social class, and tracking on opportunities to learn math and science. Santa Monica, CA: Rand.

Ogbu, J.U. (1989). The individual in collective adaptation: A framework for focusing on academic underperformance and dropping out among involuntary minorities. In Issues, Dilemmas, and Solutions. L. Weis, E. Farrar, and H. Petrie, (Eds.), 181-204. Albany: State University of New York Press.

Ogbu, J.U. (1991). Low school performance as an adaptation: The case of blacks in Stockton, California. In M.A. Gibson & J.U. Ogbu (Eds.), Minority status and schooling: A comparative study of immigrants and involuntary minorities. New York: Garland, 249-285.

Ogbu, J.U. (1992). Understanding Cultural Diversity and Learning. Educational Researcher, 21(8), 5-14.

Ornstein, A. C., & Levine, D. U. (1989). Social Class, Race, and School Achievement: Problems and Prospects. Journal of Teacher Education, 17-22.

Portes, A. & Zhou, M. (1993). Social capital and the adaptation of the second generation: The case of Vietnamese youth in New Orleans. International Migration Review, 28(4), 821-845.

Portes, A. & Schauffler, R. (1995). The educational progress of children of immigrants: The roles of ethnic community and school context. Unpublished manuscript.

Rosenberg, M. (1979). Conceiving the Self. New York: Basic Books.

Rosenberg, M. (1965). Society and the Adolescent Self Image. Princeton, NJ: Princeton University Press.

Rumbaut, Ruben G. (1995). The crucible within: Ethnic identity, self-esteem, and segregated assimilation among children of immigrants. International Migration Review, 28(4), 748-794.

Steinberg, L., Dornbusch, S. M., & Brown, B. B. (1992). Ethnic differences in adolescent achievement: An ecological perspective. *American Psychologist*, 47, 723-729.

Suarez-Orozco, M.M. (1995). The cultural patterning of achievement motivation: A comparative study of Mexican, Mexican immigrant, and non-Latino white American youths in schools. *International Migration Review*, 28(4), 748-794.

Suarez-Orozco, M. M. (1989). Central American refugees and U.S. High Schools: A psychosocial study of motivation and achievement. Stanford, CA: Stanford University Press.

Suarez-Orozco, M. M. (1991). Migration, Minority Status, and Education: European Dilemmas and Responses in the 1990s. *Anthropology & Education Quarterly*, 22, 99-115.

Szapocznik, J., & Kurtines, W. (1980). Acculturation, biculturalism, and adjustment among Cuban Americans. In A.M. Padilla (Ed.), Acculturation: Theory, models, and some new findings (pp. 139-159). Boulder, CO: Westview.

Tharp, R.G. (1989). Psychocultural Variables and Constants, Effects on Teaching and Learning in Schools. American Psychological Assoc. Vol.4. No. 2.

Tharp, R.G., & Gallimore, R. (1988). Rousing minds to life. Cambridge University Press, MA.

Trueba, R.G. (1993). Many groups, one people: The meaning and significance of multicultural education in America. Bilingual Research Journal, 16(3-4), 91-117.

Trueba, H. T. (1988). Culturally based explanations of minority students' academic achievement. Anthropology & Education Quarterly, 19, 270-287.

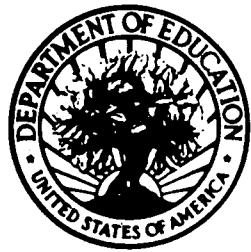
Vega, W.A., Gil, A.G., Warheit, G.J., Zimmerman, R.S. & Apospori, E. (1993). Acculturation and delinquent behavior among Cuban American adolescents: Toward an empirical model. American Journal of Community Psychology, 21(1), 113-125.

Vega, W.A., & Rumbaut, R.G. (1991). Ethnic minorities and mental health. Annual Review of Sociology, 17, 351-383.

White, K. R. (1982). The Relation Between Socioeconomic Status and Academic Achievement. *Psychological Bulletin*, 91(3), 461-481.

Whiting, B. (1976). The problem of the packaged variable. In K. Riegel & Meacham (Eds.), *The developing individual in a changing world: Historical and cultural issues*, Vol. 1. Netherlands: Mouton.

Wong-Rieger, D., & Quintana, D. (1987). Comparative acculturation of Southeast Asian and Hispanic immigrants and sojourners. *Journal of Cross-Cultural Psychology*, 18, 345-362.



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| Signature: | Position: Professor |
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| Address: Dept.: Educational and Counseling Psychology University of Louisville Louisville, Ky. 40292 | Telephone Number: (502) 852-0630 |
| | Date: 12/23/96 |